



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,326	08/08/2006	Nile A. Lahr	CTCZ 2 00079	1874
20879 7590 02/18/2010 EMCH, SCHAFER, SCHAUB & PORCELLO CO P O BOX 916 ONE SEAGATE SUITE 1980 TOLEDO, OH 43697				
EXAMINER				
MINSKEY, JACOB T				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
02/18/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,326

Applicant(s)

LAHR ET AL.

Examiner

JACOB T. MINSKEY

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-11, 13 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 11, 13, and 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/08/2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3, 5-10, 13, and 21-30 have been considered but are moot in view of the new ground(s) of rejection.

3. The amendments filed with the RCE overcame the previously presented rejections. Upon a new search, the art presented in the following rejections was discovered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 6, 9-10, 13, 21-22, 25, 28-30 are rejected under 35 U.S.C. 102(a) and e) as being anticipated by Tanaka, US Patent Publication 2002/0119209.

6. Regarding claims 1, 21, and 30, Tanaka teaches a method of making a tire mold by preparing a plurality of plates to define the tread pattern (see figures 1-4) by machining at least one discrete region on at least one side of the plates (grooves 21 [0056]) and thereafter stacking the plates so that the grooves form a gap (gap 17 [0055-0058]) between the plates (described in [0057-0059]), and that the gaps are connected to vent passages (groove 18 [0057-0059]) that are bigger and wider than the first gaps [0058] and is at a depth of 1-3 mm (.04-.12 inches [0058]), which reads on the approximately .060 inches).

7. Regarding claims 2, 13, and 22, Tanaka further teaches that the discrete regions are machined to a depth of 0.002-0.008 inches (.1-.3 mm = 0.004-0.012 inches [0058]) and the vent is at a depth of 1-3 mm (.04-.12 inches [0058]), which reads on the approximately .060 inches).

8. Regarding claims 6 and 25, Tanaka further teaches that the plates are stacked over alignment pins (see figures 13-15 and [0068-0071]).

9. Regarding claims 9 and 28, Tanaka further teaches the mold is a segmented mold (see figures).

10. Regarding claims 10 and 29, Tanaka further teaches that the interior of the mold plates form the tread of the tire mold (see abstract and figures).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. **Claims 3, 5, 7, 23, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka, US Patent Publication 2002/0119209.**

15. Regarding claims 3 and 24, Tanaka is silent on the thickness of the plates of the mold. These claims require that the majority of the plates are less than one inch thick. One of ordinary skill in the art at the time of the invention would have found it obvious to make the plates less than an inch thick because all of the gaps and alignment measurements are in the range of millimeters or tenths of millimeters. If the thickness of the plates were bigger than an inch, these small ranges would be hard to control during the molding operation. Additionally, where the claimed and prior art apparatus or products are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

16. Regarding claims 5 and 23, Tanaka remains as applied above, but only teaches the depth, width, and height of the various gaps and vents. Tanaka is silent on the length of the areas.

17. One of ordinary skill in the art at the time of the invention would have found it obvious to make the length of the paths less than an inch thick because all of the gaps and alignment measurements are in the range of millimeters or tenths of millimeters. If the length of the paths were bigger than an inch, these small ranges would be hard to control during the molding operation. Also, the figures depict the different sections that connect to each other; area 21 connects to the gaps 17 which connect to the vents 18. It would have been obvious to keep these distances as short as possible in order to get

the air out of the mold as efficiently as possible. Additionally, where the claimed and prior art apparatus or products are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

18. Regarding claims 7 and 26, Tanaka further teaches the use of an alignment pin in the mold, but is silent on if the pin is threaded or not.

19. A person of ordinary skill in the art, upon reading the teachings of Tanaka, would have recognized that a thread is one of a finite number of ways a pin can be inserted into a mold (threaded or straight). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to try using a threaded screw in the method because a person with ordinary skill has a good reason to pursue the known option within his or her technical grasp. "A person of ordinary skill has a hood reason to purser the known option within his or her technical grasp, If this leads to the anticipated success, it is likely the product not of innovation but or ordinary skill and common sense." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

20. Claims 8 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka, US Patent Publication 2002/0119209 in view of Fike, USP 6,632,393.

21. Regarding claims 8 and 27, Tanaka teaches the method of making a tire mold with the stated limitations as discussed above. Tanaka focuses on the use of a segmented mold, but is silent on the use of a clam shell mold as an alternative.

22. In the same field of endeavor of using a mold to form tire treads, Fike teaches that there are two types of molds that are commonly used in tire making, clam shell and segmented molds (see column 1). Fike also teaches that one of ordinary skill in the art can convert one type into another (column 7 lines 36-40).

23. A person of ordinary skill in the art, upon reading the teachings of Fike (and Tanaka), would have recognized that a clam shell mold is one of a finite number of mold types that can be utilized in tire production. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to try using a clamshell mold in the method because a person with ordinary skill has a good reason to pursue the known option within his or her technical grasp for the benefit of utilizing already owned equipment or utilizing equipment with less moving parts for ease of use. "A person of ordinary skill has a good reason to pursue the known option within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB T. MINSKEY whose telephone number is (571)270-7003. The examiner can normally be reached on Monday to Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art
Unit 1791

JTM